

In the Specification:

Please amend paragraph [0008] as follows:

The method may further include the removal of portions of the transparent layer to form a recess with a first recess depth at the clear areas. The portions of the transparent layer may be removed by reactive ion etching using an etch chemistry including SF6 and/or CF4, for example. Part of the phase-shifting layer with a second thickness may remain at the clear areas, wherein the second thickness is less than the first thickness. The second predetermined phase shift may be approximately equal to or greater than the first predetermined phase shift. Typically, the second wavelength will be ~~greater~~smaller than the first wavelength. The first predetermined phase shift may be about 180 degrees, and the second predetermined phase shift may be equal to or greater than about 180 degrees, for example. The initial thickness of the phase-shifting layer may be adapted to provide a first optical transmission for light of the first wavelength, and the first thickness of the phase-shifting layer at the dark areas may be adapted to provide a second optical transmission. The second optical transmission is preferably less than or equal to about 6%, for example. Yet, as another example, the second optical transmission may be between about 5% and about 15%. The initial thickness of the attenuation and phase-shifting layer may be reduced by reactive ion etching using an etch chemistry including at least one of SF6 and CF4, for example.

Please amend paragraph [0028] as follows:

Next, as shown in FIG. 6, portions of the attPS layer 24 are removed in a pattern to form the clear areas 26. In the second embodiment, part of the attPS layer 24 having a thickness D_3 remains over the transparent layer 22 at the clear areas 26 (see FIG. 6). Preferably, the removal of attPS layer material at the clear areas 26 is performed using a RIE process with an etch chemistry of SF_6 and/or CF_4 , for example. However, one of ordinary skill in the art should realize other processes that may be [[use]] used for such removal, including (but not necessarily limited to) wet etching, RIE, ion milling, or any combination thereof, for example. The following equations may be used to calculate the phase shift and transmittance, and/or to determine the values of D_1 and D_3 that provide desired values of phase shift and transmittance, for a given wavelength (λ_t) of light:

$$\Phi_t = [2(n_t-1)(D_1-D_3) / \lambda_t]180^\circ$$

$$T_1 = [[L_1/L_o =]] A_t \exp(-4\pi k_t D_1 / \lambda_t)$$

$$T_2 = [[L_2/L_o =]] A_t \exp(-4\pi k_t D_3 / \lambda_t)$$

$$T_t = [[L_1/L_2 =]] T_1/T_2 = \exp[-4\pi k_t (D_1-D_3) / \lambda_t]$$

where:

Φ_t = phase shift of light through line-A relative to light through line-B, based on using D_1 for dark area, D_3 for clear area, and λ_t , where $\lambda_t < \lambda_o$

n_t = refractive index of attPS layer material at λ_t

D_1 = attPS layer thickness on mask blank at dark area

D_3 = attPS layer thickness on mask blank at clear area

λ_t = wavelength of light used

T_t = transmittance through line-A relative to light through line-B based on using D_1 , D_3 , and λ_t

T_1 = transmittance through line-A based on using D_1 and λ_t

T_2 = transmittance through line-B based on using D_3 and λ_t

A_t = constant for attPS layer material at λ_t

k_t = extinction coefficient for attPS layer material at λ_t .